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ABSTRACT

Well-financed and appropriately organized school districts are essential if rural education is to be improved. Since all 3 levels of government (local, state, and Federal) participate in providing revenues for rural education, coordination among them is necessary. In many states, the local property tax still provides a major portion of educational funding. In such states, property tax administration is of prime importance, since a poorly administered system limits the availability of revenues. In much of rural America, therefore, property tax reform is a matter of some urgency. If rural students are to be provided with an education appropriate for life in modern society, the quality of their schooling should not be based on local tax-paying ability. Considering the states' responsibility for the support of education, movement toward full state funding is recommended. Statewide planning is also needed to ensure that revenues provided by the state are used effectively. State leadership in the planning activities of local and regional authorities is an important element in the development of improved rural educational systems. Federal categorical support of programs designed to improve rural education should be continued. Within this complex financial and organizational system, the rural educator plays the key role. Therefore, administrators and school board members in rural communities should be provided with financial and technical assistance to permit them to meet the needs of their students. (KM)

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FINANCING RURAL EDUCATION

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Chapter 1

RURAL EDUCATION: DEFINING THE PROBLEM

Rural education can be specified as the schooling provided that part of the population which is defined by the U.S. Bureau of the Census as residing in rural areas. According to the Bureau of the Census, rural areas include incorporated or unincorporated places of less than 2,500 population, open country, and areas of relatively low population density adjacent to extended cities. Cushman (1954: p. 4) pointed out that the rural population comprises persons engaged in agriculture, commercial fishing, forestry, and tourism, as well as tradesmen in small communities and an increasing number of nonfarm residents who live in the country and commute to work in the city.

There is considerable variation among rural school districts. Some districts are relatively affluent, with a clientele that has both the ability and desire to make a substantial investment in its educational system. Others include substantial areas of poverty and underemployment with, for the most part, underfinanced schools. Some rural areas contain school districts in which the population is exclusively Caucasian. Others contain heavy concentrations of members of racial and ethnic minorities, including American Indians, Blacks, and Chicanos (see Appendix, Table A-1). In some rural school districts, residents commute to the city daily to work; other school districts are many miles from major population centers. Finally, some rural school districts are experiencing rapid growth; others are experiencing a decline in population. This diversity has important implications for educational programs and financial needs.

Rural school districts are faced with a variety of educational problems, some of which have fiscal implications. Certain financial issues result from high ratios of professionals to students, high costs of transportation, and substantial per pupil costs for curriculum development. Particularly acute problems, in the form of inadequate resources for education, characterize those widespread rural areas where poverty is a way of life (see Appendix, Table A-2).

There is a close relationship between problems of educational finance and questions of educational planning. While schools need money to operate,

planning is necessary for the development of improved educational systems. As is pointed out in Chapter 2, long-term planning, including the identification of educational objectives and the selection of procedures for achieving these objectives, can help rural areas to improve the effectiveness of educational programs. The financial aspects of planning include studying revenue sources and exploring possible new sources of funds. Chapter 3 analyzes present revenue systems and provides a variety of suggestions for rural educators.

Despite migration from rural areas to cities (see Appendix, Table A-3), a substantial part of the nation's population lives in rural America. The size of the rural population, which comprises about one-fourth of the total population, has remained almost constant at about 50 million over the past two decades (see Appendix, Table A-4). However, the composition of the rural population has changed, with an increase in the rural nonfarm population and a continuing decrease in the rural farm category (see Appendix, Table A-5).

Cost Factors Associated with Population Sparsity

High Staffing Ratios

The most important single factor causing high per pupil costs in rural schools is a relatively high ratio of professionals to students. One result of this phenomenon is that administrative costs per pupil in school districts of up to 600 pupils are approximately twice those of districts with more than 25,000 pupils ("Cost of Education Index," School Management; January 1973: pp. 28-29).

The cost effects of high staff to student ratios are felt most severely at the secondary school level. Accreditation regulations, together with the desire to accommodate the educational preferences of a diverse student body, result in efforts to maintain a broad curriculum. Such efforts require hiring a variety of specialists. Gividen's Iowa study (1963: p. 8) showed that average high school pupil-teacher ratios ranged from 6.0 in high schools with an enrollment of less than 24 to 22.0 for high schools with an enrollment of 600 and above. Thus, a dollar spent on the education of a rural pupil may sometimes purchase less in educational services than a dollar spent on the education of a child in a more densely populated area.

That educational advantages are often associated with small schools is not to be denied. A well-known study by Barker and Gump (1962) documented these values. The point being made here is that small school size also produces monetary costs. These costs are sometimes hidden in the lower salaries received by rural school personnel and in the diminished educational opportunities which result from inadequate curricula.

Transportation

On the average, school districts in rural areas pay high per pupil costs for transportation. A large proportion of pupils in rural areas are transported, and costs per pupil mile are also relatively high. Distances are great, and buses often operate well below total capacity. Furthermore, small buses are often used, resulting in high per pupil costs for equipment and drivers' salaries. Rural schools have little or no control over these costs (Table 1). Where state aid comes to less than the full costs of transportation, rural school districts must pay the difference in cost from funds that would otherwise be available for instruction.

Table 1

Michigan Transportation Costs, Including Depreciation of Buses, and Depreciation and Imputed Interest in Bus Storage Facilities (840 Districts) 1965-1966

School District Enrollment	Detroit SMSA	Southern Michigan	Northern Michigan
0-250	$52.57 (3)	$61.53 (257)	$16.05 (120)
251-500	51.88 (1)	44.17 (57)	47.23 (48)
501-1,000	33.07 (16)	34.66 (138)	34.16 (35)
1,001-2,500	14.73 (25)	23.52 (60)	21.16 (12)
2,501-5,000	14.21 (26)	1.40 (14)	43.37 (1)
5,001-10,000	11.14 (16)	9.28 (8)	-
Over 10,000	5.82 (1)	8.79 (2)	-

SOURCE: Reprinted by permission from a book by J. Alan Thomas, School Finance and Educational Opportunity in Michigan (Lansing: State Department of Education, 1968), p. 173.

Curriculum Development

One especially costly aspect of rural education is the development of appropriate curricular and teaching materials. Educators agree that these materials should be adapted to children's interests and backgrounds. However, producing such materials is expensive, especially when they are used by relatively small numbers of students. Fortunately, regional agencies such as educational cooperatives, intermediate units, Title III Elementary and Secondary Education Act (ESEA) centers, and regional laboratories have, in various parts of the country, produced outstanding materials.

Expenditures for Education in Rural Areas

Despite the cost factors described above, per pupil expenditures are, on the average, lower in rural than in urban areas. Documenting this generalization, Tamblyn (1973: p. 25) estimated that the average expenditure for education in rural schools several years ago was about three-fourths that in urban areas. In a recent study of educational finance in Michigan, Thomas (1968) found per pupil expenditures for education to be lower in small districts than in large districts (district size being expressed in terms of enrollment). However, in very small districts, cost pressures caused a reversal of this general trend (see Table 2).

Several factors contribute to the relatively low per pupil expenditures which characterizes rural areas. According to the 1970 census (U.S. Bureau of the Census, 1972: pp. 398-401) the median family income of urban residents was $7,974; that of rural nonfarm residents was $7,036; and that of rural farm residents was $6,565. Furthermore, many rural areas have high proportions of residents with incomes below the poverty line. In 1970, 5.9 percent of urban dwellers had incomes of less than 75.0 percent of the poverty level. The corresponding figures for rural nonfarm and rural farm dwellers were 9.8 percent and 10.6 percent, respectively. Even more severe is the incidence of poverty among rural nonwhites. In 1970, 17.9 percent, 36.1 percent, and 36.5 percent respectively of urban, rural nonfarm, and rural farm Negro families had incomes less than 75.0 percent of the poverty level (see also, The People Left Behind, 1967: p. 3).

These statistics suggest that some rural areas have inadequate resources for the support of education. This conclusion is reinforced by Table 3,

Table 2

Operating Expenditures Per Pupil in Michigan by Size of School District and School Level, 1965-66

Size of District, Pupil Enrollment	Expenditures Elementary	Secondary	Difference
0-250.....	$306.12	$522.74	$216.52
251-500.....	299.82	453.47	153.65
501-1,000.....	321.65	428.29	106.64
1,001-2,500.....	358.03	451.61	93.58
2,501-5,000.....	400.37	489.94	89.50
5,001-10,000.....	424.85	531.21	106.36
Over 10,000.....	445.22	553.68	108.46

SOURCE: Reprinted by permission from a book by J. Alan Thomas, School Finance and Educational Opportunity in Michigan (Lansing: State Department of Education, 1968), p. 162.

which demonstrates that the ten most rural states have lower average incomes than the ten most urban states. Well-to-do rural areas, including some agricultural regions, mining sites, and districts where tourism is a major industry have relatively high ratios of property value to population. However, although the property tax is of central importance in financing rural education, this tax is paid from income. Hence, the median family income of a state or school district is probably a better index of taxpaying ability than its property valuation.

In addition to a weak economic base, there is an apparent lack of interest, in some rural areas, in providing increased financial support for schools. Bowman and Haynes (1963: p. 242) reported that communities in eastern Kentucky had little or no interest in the improvement of educational standards. They found per capita expenditures, expenditures relative to income, and property tax rates for education to be lower in the mountain counties than elsewhere in the state of Kentucky.

This lack of enthusiasm on the part of certain rural communities for increasing local taxes to support education is understandable. The young

Table 3

Per Capita Personal Income and Educational Expenditures Per Pupil in the Ten Most Urban and Ten Most Rural States

State	Percent Rural 1970	Per Capita Personal Income 1970	Estimated Current Expenditures for Public Elementary and Secondary Schools Per Pupil in Average Daily Attendance, Revised 1970-71
Ten Most Rural States			
Vermont	67.8	$3,465	$1,100
West Virginia	61.0	3,021	676
North Dakota	55.7	2,995	711
Mississippi	55.5	2,575	603
South Dakota	55.4	3,165	718
North Carolina	55.0	3,207	657
South Carolina	52.4	2,936	654
Arkansas	50.0	2,791	578
Maine	49.1	3,257	767
Kentucky	47.6	3,073	625
Ten Most Urban States			
Florida	19.5	$3,642	$ 819
Utah	19.4	3,213	657
Nevada	19.1	4,562	808
Hawaii	17.0	4,527	979
Illinois	17.0	4,502	978
Massachusetts	15.4	4,360	882
New York	14.4	4,769	1,381
Rhode Island	13.0	3,902	960
New Jersey	11.1	4,598	1,163
California	9.1	4,426	Not Available

SOURCES: U.S. Bureau of the Census, General Social and Economic Characteristics. Census of Population: 1970; Final Report PC(1)-C1; United States Summary (Washington, D.C.: U.S. Government Printing Office, 1972), Column 5, Table 142, p. 470. Research Division, National Education Association, Rankings of the States, 1972. Research Report 1972-R1 (Washington: N.E.A., 1972), Tables 55, 110, pp. 34, 62.

people who will profit most from improved schools are often those who are most likely to leave the area after graduation. The reluctance of local residents to see young people leave the community, together with the observable loss of human capital, partly explains the underinvestment in education which sometimes characterizes rural educational systems (Tweeten, 1967: p. 14).

We have cited several reasons for the apparent fiscal conservatism of some rural areas. First, relatively low incomes affect the ability to pay taxes. Further, property taxes can be especially onerous in capital-intensive agricultural areas. Finally, where many young people have left the district, decision making is left in the hands of the more conservative older elements of the population (see The Impact of Population Changes, 1962). We turn now to the effects of low expenditures.

The Results of Low Per Pupil Expenditures in Rural Areas

Inadequate revenue systems in rural areas have detrimental effects on the salaries of teachers and other personnel, as well as on their living conditions and the availability of fringe benefits. Inservice training is often unavailable, and supporting services for teachers may be lacking. School buildings may be poorly planned and may not reflect the best and most modern practices. The result of these limitations may, in some rural areas, be inadequate curricula, inferior teaching, and a limited set of instructional and other services for students.

Teachers' Salaries

The largest single component of educational expenditures is teachers' salaries. Salaries for rural teachers and administrators are, by and large, lower than salaries of teachers in urban and suburban areas. Furthermore, fringe benefits are often limited in rural areas, thus adding to the rural-urban economic inequities affecting teachers (see Thomas, 1968: Chap. 3).

Rural-urban salary differences are sometimes justified on the basis of corresponding differentials in the cost of living. It is important, however, to encourage a continuing flow of talent to all schools, regardless of their location. It is therefore recommended that policy makers provide economic inducements to rural teachers equivalent to the inducements—salaries and fringe benefits—received elsewhere. In justification of this

recommendation, Tamblyn's observations (1971) that "much of the clientele most readily available to staff rural schools lack drive, permanence, and relevant preparation"[p. 24] should be considered. Further, some of the most complex responsibilities found in the entire educational system fall upon the shoulders of rural teachers. Rural teachers must teach a variety of subjects to a diverse group of students. Because of a frequent lack of specialized personnel, rural teachers must often deal, within the same classroom, with the complex educational, social, and personal problems of a diverse student body, some of whom may be handicapped, gifted, or economically disadvantaged. Rural teachers are often expected to maintain a closer relationship with the community than is expected of urban teachers. Also, rural teachers are often expected to provide a variety of additional services and must frequently act as social worker, truant officer, and medical advisor.

Inservice Training

The complex responsibilities mentioned above make the inservice training of rural teachers a necessary component of the total educational system. Teacher training is usually general in nature and does not provide the specific skills needed for service in rural areas. Practice teaching is, all too frequently, of little assistance in developing the needed competencies. An exception is the preparation program (Wilson, 1970: p. 15) incorporated in the Alaska Rural Schools Project, initiated by the University of Alaska.

Opportunities to participate in continuing professional training are seldom available for rural teachers (see Table 4). It is recommended, therefore, that state departments of education take the initiative, either through use of their own resources or acting in concert with universities, intermediate units, or other agencies, in increasing opportunities for the inservice education of rural teachers.

Supervision and Administration

Data from the Michigan study (Thomas, 1968: p. 86) suggest that rural areas are often at a disadvantage in attempting to recruit and retain the best-trained administrators. Superintendents in rural areas receive, on the average, relatively low salaries. Many move to larger districts in search of higher salaries and greater challenges. Thus, rural districts

Table 4

Number of School Districts With a Program of Continuous Inservice Training For Implementing New Programs or Materials by School District Size and Wealth

School District Size (Number of Pupils)	Over $14,000 Property Valuation Per Pupil				$9,000–$14,000 Property Valuation Per Pupil				Less Than $9,000 Property Valuation Per Pupil				Total
	No Program		Program		No Program		Program		No Program		Program		
	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	
Over 5,000	6%	2	94%	30	13%	3	89%	21	25%	4	75%	12	72
1,000–5,000	42	25	58	34	42	59	58	80	44	39	56	50	287
1,000 or less	58	25	42	18	60	31	40	21	60	41	40	22	163
TOTAL	39%	52	61%	82	43%	93	58%	122	49%	84	51%	89	522

SOURCE: Reprinted by permission from a book by J. Alan Thomas, School Finance and Educational Opportunity in Michigan (Lansing: State Department of Education, 1968), p. 88.

may have a high rate of superintendent turnover. On the other hand, school district consolidation has undoubtedly contributed to making rural school districts more competitive in seeking out aggressive educational leaders.

Supervisory personnel are less frequently employed in small districts than in large, populous areas. Once again, cost is a major factor since it is prohibitive for most rural school districts to hire a variety of consultants and supervisors. Large consolidated districts can often employ such persons; intermediate units and cooperatives sometimes provide these kinds of services; in some instances, states provide supervisory services in rural areas. It would be best if state departments of education assumed the responsibility for ensuring that rural teachers have the necessary supportive services.

Services to Students

As noted above, the resource inadequacies which characterize many rural school systems result in low salaries and limited programs for teacher development. In addition, shortages of funds tend to produce constraints on the services which are available to students. Hence, counseling services

are often meager or nonexistent, while vocational programs are seldom sufficient to prepare students for finding jobs in our complex industrial society.

While rural children are varied in their needs, interests, and abilities, they are often exposed to an overly narrow curriculum. Subject matter specialists are sometimes unavailable, especially in elementary schools. In many areas of rural America, special programs for students with physical, mental, or emotional problems are unavailable (Thomas, 1968: Chap. 2). Disadvantaged children in rural schools are frequently without programs designed to compensate for deficiencies in their home environments. For example, medical and dental programs are lacking in many rural schools.

In summary, underfinanced rural educational systems often lead to poor economic conditions for professional personnel, inadequate supportive services for teachers, and limited curricula. Students with special educational needs may suffer disadvantages because of a lack of appropriate programs. Improvements in rural education will bring important benefits, both to the students immediately involved and to the nation as a whole.

Benefits of Improved Rural Education

Improved educational systems in rural areas will enable many persons to increase their income through improved earnings and higher standards of living.

Some rural school districts are faced with the important task of enabling young people to escape from social and economic deprivation. The relationship between schooling and poverty is documented by Tweeten (1967: pp. 13-14), who reported that, in 1959, 31 percent of rural farm families whose heads had 12 or more years of schooling had incomes below the poverty level; 57 percent of families whose heads had eight or fewer years of schooling were below the poverty level. For those young people who will remain in rural America and for those who will move to the cities, education can lead to higher income, improved job opportunities, and, for those from impoverished backgrounds, a route to economic self-sufficiency.

The Nonmigrant

It can be inferred from the 1960 census data (Tweeten, 1967) that "education through at least high school is a productive investment for

those who remain in farming"[p. 14]. Presumably, education adds to management skills and enables the recipients to benefit from knowledge about preferred farming methods. Tweeten provides data (Table 5) indicating that farm income is related to schooling level, both in the South and elsewhere.

Table 5

Gross Farm Income and Median Education of Farm Operators
1949

Full-time Commercial Farmers Gross Cash Farm Income (Dollars)	Schooling Completed By Farm Operators	
	South	Non-South
$ 250-1,999	6.1	8.3
1,200-2,499	6.8	8.6
2,500-4,999	7.6	8.6
5,000-9,999	8.5	8.8
Over $10,000	10.5	10.2
AVERAGE, ALL FARMS	7.1	8.7

SOURCE: Luther G. Tweeten, The Role of Education in Alleviating Rural Poverty (Washington: Department of Agriculture, 1967), p. 14.

For rural nonfarm residents, too, income is related to educational level, as well as to job opportunities in the area. In many rural areas, especially in the South, education and job training provide the key to regional development. Hansen (1971) suggested that "there is widespread and increasing agreement that the interrelated economic and social problems of the South are primarily a consequence of the region's relatively low investment, in both the past and present, in its human resources"[p. 40]. Coordinated economic and educational development is recommended. Hansen further observed that the South needs better-educated and skilled workers to fulfill the requirements of new industry and the expanding business sector.

The Migrant

A major cause of the migration from rural to urban areas has been the search for economic betterment. Wertheimer (1970) reported that migration "from rural areas into urban areas yields an earnings difference ranging from about $600 per year for cities with a population of less than 250,000

to nearly $1,100 per year for cities with a population of over 250,000" [p. 57]. However, Tweeten (1967: p. 21) points out that in the case of those with very low incomes, such as sharecroppers, tenant farmers, and small farm owners, it is the lack of farm opportunities rather than the lure of employment in the cities which explains their mobility.

A number of factors underlie migration. The mechanization of agriculture and the consequent consolidation of farms have forced many rural people to move to the cities. Economic stagnation in Appalachia and elsewhere has had a similar effect (Bowman and Haynes, 1963: p. 203). Tweeten (1967) writes that "it is an accepted fact that migration is necessary to eliminate rural poverty"[p. 18].

Migration is a selective process. In the first place, migrants are younger than the population as a whole (Wertheimer, 1970: p. 21). Since the young tend to be better educated than the older residents of a given area, it follows that the best educated are overrepresented in the migrating group. Additionally, in each age group the best educated are most likely to migrate, according to a recent study (Bowman and Haynes, 1963: p. 202). The unfortunate result, from the point of view of the rural community, is that the older and less well-educated members make up the remaining population.

Despite this selectivity, those who move to the cities tend to be less educated than the receiving population. According to Tweeten (1967: p. 2), migrants to a major midwestern city from the rural South were disproportionately represented in criminal activity, in juvenile delinquency, on welfare rolls, and in the ranks of the unemployed.

Rural Education as an Investment

Many economists regard the education which is embodied in human beings as a form of capital. Economists (Schultz, 1971: p. 8) also look upon on-the-job-training, migration, and expenditures for health as an investment in the earning power of individuals.

The formation of human capital entails both costs and benefits. The costs of schooling include payments for salaries of teachers and administrators, supplies, buildings, and so on. For older students, costs also include the earnings they forego by being in school. Benefits include the additional earnings received as a result of schooling, as well as a wider range of job opportunities.

Economists who have compared the costs of education with its benefits have found that investments in education provide a return at least as high as that received for the ownership of physical capital. Underinvestment, too, produces substantial costs, both to the individual and to the total society, since undereducated people are often public charges rather than contributors to the nation's economy.

Rural to urban migration represents a transfer of human capital. Since the benefits of improved education in rural areas will often be harvested by other parts of the country, rural communities should not be expected to pay the full costs of improving their schools. Increased state and federal funding of rural education will, in many instances, be justified.

Summary

Problems of financing the education of the nation's young people are both massive and complex. America's rural population totals about 50 million; about 14 million students attend rural schools. While the size of the rural population appears to be stabilizing, the rural school population appears to have increased slightly between 1960 and 1970, partly because of the greater availability of kindergartens and partly because the growing nonfarm rural population is younger, on the average, than the rural farm and the urban population. While precise financial data are unabailable, it is estimated that the total annual expenditures for rural public elementary and secondary schools are more than 10 billion dollars.

The most striking feature of the rural population of the United States is its diversity. Many rural nonfarm areas are situated on the outskirts of large cities and have some of the characteristics of suburbs. As they continue to grow, they will be reclassified as urban. At the other extreme are sparsely settled rural areas, often many miles from centers of population. While some rural areas are prospering, other large areas, including parts of the rural south, Appalachia, and the Ozarks, suffer from persistent poverty.

Per pupil expenditures for education are lower on the average in rural than in urban areas. This phenomenon is explained by the relatively low family incomes in most of rural America, as well as by rural-urban cost of living differentials. These differentials are manifested in relatively

low wage and salary schedules in rural areas and also in low average costs for school construction.

However, certain cost factors exacerbate the problem of financing rural schools. In general, school districts with low enrollments have high ratios of professional personnel to students. This is particularly the case with rural high schools. Pupil transportation and curriculum development are also relatively expensive in rural areas.

This combination of low expenditure levels and special cost pressures produces financial problems which are particularly characteristic of rural schools. The results of these problems are manifested in a number of ways. Salaries of teachers and other personnel are relatively low, placing rural schools at a disadvantage in attracting a flow of professional talent. Supporting services for teachers are often inadequate, as are provisions for professional development. In the more sparsely settled areas, student services, particularly in such fields as counseling and health, tend to be limited. Curricula are often too narrow to accommodate the varied interests, abilities, and aspirations of the students. Vocational programs may be narrowly focused, with an overemphasis on agricultural occupations. Students with special abilities or handicaps may be without compensatory, remedial, or advanced programs.

Well-financed rural schools are essential to the welfare of the entire country. Some rural youths need special skills to permit them to be productive in farming or other extractive industries. Others will be competing for jobs in the business, manufacturing, and governmental sectors. For both migrants and nonmigrants, high quality education is the route to higher incomes and greater personal satisfaction.

Chapter 2

EDUCATIONAL PLANNING IN RURAL AREAS

In all parts of the country, educators are displaying a renewed interest in planning. The newer planning techniques, such as Program-Planning-Budgeting-Evaluating Systems (PPBES), involve applying to education certain management procedures which were initially developed for use in industry and in government. The essential purpose of these systems is to permit scarce resources to be used effectively.

In Chapter 1, some central policy issues in the financing of rural education were identified. It was noted that, while certain rural educational systems provide educational services of high quality, others do not adequately prepare students to compete in modern, industrial society. Many rural educational systems have insufficient resources to permit needed improvements to be made. Furthermore, special cost factors reduce the purchasing power of the rural educational dollar. These conclusions have two major implications. First, resources should, when possible, be increased; this issue is discussed in Chapter 3. Second, the available funds should be used as effectively as possible—effective resource utilization is the subject of the present chapter.

Small school systems are at a disadvantage in educational planning School board members and administrators are usually fully involved with making ongoing decisions and have little time for long-range planning. Also, only the larger and wealthier rural school districts have the resources needed to employ specialized personnel for planning activities. However, assistance in educational planning is sometimes available to the smaller rural schools from other agencies, such as state departments of education, universities, intermediate units, and regional agencies.

Educational planning is not, to be sure, a recent development. All educators, from classroom teachers to school superintendents, are continually involved in planning. Curriculum development, budget preparation, and the determination of school facility requirements are long-term planning activities for which appropriate procedures have been devised. The value of the new management systems lies, in large part, in their emphasis on a system-wide coordination of the planning effort. While a number of

special difficulties, such as the limited availability of specialized personnel, are often present, modern management systems are of considerable potential value in the improvement of rural education.

This chapter begins with a discussion of information systems. Discussion then turns to the issue of setting educational objectives. The following section deals with the selection of instructional and organizational alternatives designed to permit the desired objectives to be reached. Then, discussion is turned to budgeting from the planning perspective. The chapter concludes with a discussion of issues in evaluation and accountability.

Information Systems for Rural Educational Planning

A major deterrent to sound educational planning, at all levels of government, is the lack of appropriate, dependable data. Even the local educational administrator and the board member who have a first-hand knowledge of their community may be without some of the information they need to make informed decisions. Much of the necessary knowledge is in the possession of a variety of governmental and private organizations, including those which are responsible for health, welfare, regional economic development, and agriculture. Assembling the data needed for educational planning is time consuming, difficult, and expensive.

Educational systems require dependable knowledge, organized to be useful to educational decision-makers. Where regional computational facilities are available, they may be used by local school districts for the purpose of information storage and analysis.

A wide variety of data will be needed. Some of the most important categories are identified below.

1. Characteristics and Location of the School Population

Decisions concerning transportation routes, location of school facilities, and financial requirements necessitate information about the age and place of residence of preschool and school-age children, as well as data about new births and about migration to and from the area. Many districts already maintain an up-to-date child census. Few have as yet made full use of the advantages of computers for storing and processing these data.

2. Demographic and Economic Trends

Census data concerning the education, income, and occupations of the population have broad implications for curriculum planning and for educational finance. Variations in these characteristics within a region, as well as the changes which occur over time, are of particular significance.

Where, for example, data show that an increasing proportion of the population is employed in manufacturing, while a decreasing proportion is involved in agriculture and other extractive industries, vocational education programs will be needed which deemphasize the agricultural occupations and which place added emphasis on the development of more appropriate industrial skills. Another implication is that schools identified as serving students from low-income homes will need to give special attention to student health and nutrition, as well as to compensatory education.

Shifts in the economy of a region have important demographic and educational implications. The growth of new industries or the decline of old ones affects the tax base and may also change the age and income distribution of the adult population, as well as the educational and occupational characteristics of adults. These shifts may, in turn, influence attitudes toward education and the willingness and ability of property owners to pay taxes for the support of schools. Selective out-migration and farm mechanization will also have an impact on the size and characteristics of the population.

In addition, industrial development can create new job markets for graduates. Changes in the composition of industry and in the resulting demand for skilled and unskilled labor have important implications for vocational education.

3. Educational Achievement

Achievement test batteries administered at the various grade levels provide data which are essential for educational planning. If this information is gathered and analyzed for an entire region, variations within the region can be used as a basis for identifying successful and unsuccessful programs. Computer use can greatly speed the analysis of results. It is essential that the tests themselves be carefully analyzed before they are administered; results can differ—depending on the emphasis of the particular test and the relationship between its subject matter and the

established curricula. Results should be made public, in order to bring about an awareness, throughout the community, of the school system's strengths and weaknesses.

4. Drop-out Studies

It is important to determine why young people drop out of school. Frequently, their occupation after leaving school tells much of the story. For example, farm children often can be usefully employed at home, and, thus, may feel that the cost of attending school, in terms of immediate losses in family income, is too high. In addition, young people may believe that formal education is not necessary for the careers they plan to pursue, or they may think that the education which is offered does not provide adequate preparation for future employment. Drop-out studies may indicate that students need to be better informed about the kinds of training needed for specific jobs, as well as the range of possible careers open to them. Studies may also indicate that inappropriate curricula or poor teaching are reducing the attractiveness of school for many students.

5. Educational and Vocational Plans of Students

School districts should consider conducting systematic studies of students' educational and vocational aspirations. Such studies will provide useful information about the suitability of the curriculum. If, for example, most students plan to enter the job market immediately after leaving school and if the curriculum is heavily academic in nature, an increased emphasis on vocational education may be desirable. If vocational programs are oriented toward agriculture while only a minority of students enter agricultural occupations, decisions may be made to broaden the vocational offerings. On the other hand, studies may reveal a disparity between aspirations and behavior. Career and educational aspirations may be unreasonably high, or students may display a lack of awareness of the variety of occupations which are available to them. Under these circumstances, improved vocational and educational guidance may be necessary.

6. School Facilities and Transportation Routes

Long-range planning requires information about the size and location of school facilities, as well as information about their utilization. Information may also be needed about the appropriateness of current facilities.

For example, it is often important to know whether the design of the school buildings inhibits the introduction of such procedures as flexible scheduling, individualized instruction, the use of modern media, and team teaching.

Periodic studies of pupil transportation are also needed. To avoid duplication of transportation routes or the inefficient use of school facilities, planning for facilities and transportation should, on occasion, be conducted on a regional basis. Good communication among state authorities, intermediate districts, and local school districts will lead, in some cases, to cooperative planning for pupil transportation and, in other cases, to improved decisions concerning the location of school facilities.

Setting Educational Objectives

To summarize the preceding section, sound educational planning requires dependable and appropriately organized information about the community, the school, and the students. Decision makers can use these data in their analysis of the strengths and weaknesses of the educational system, as well as in the determination of educational objectives. At this stage, the participation of parents, teachers, and school board members, as well as administrators, is considered advisable.

Objectives should be stated in precise, nonsubjective terms in order that the system's progress in achieving them may be measured. It is important, too, that program objectives be stated as outcomes, rather than in terms of the resources needed to produce these outcomes. For example, the statement, "All children four years to five years of age shall be enrolled in a preschool program," is a possible means to the achievement of a given outcome; but it is not an objective in itself. On the other hand, the statement, "At least 90 percent of the children in the district shall have reading readiness by age six," is an appropriate objective for the district.

Both short- and long-term objectives should be stated. An example of a long-term objective is "Each high school graduate who does not plan to go to college should leave school with an employable skill." Measurement of the achievement of this objective requires follow-up studies of graduates, a difficult task for rural school systems, many of whose students migrate to the city after graduation. Such studies are essential if school systems are to assess their effectiveness.

Programming

In the present context,"programming" refers to the identification and selection of procedures for reaching a given set of objectives. After objectives have been identified, teachers, parents, administrators, and school board members may be involved, according to their various competencies, in a discussion of instructional alternatives. In some cases, there will be a natural transition to the consideration of school district reorganization or of cooperation among educational agencies.

Programming, in turn, leads to the next aspect of the planning process, namely, the preparation of a budget. As an example of how the budget results from the educational program, consider the development of procedures designed to achieve the objectives of "raising the reading scores of students entering the second grade from a median of 1.6 to a median of 2.0." Assume that the procedures designed for reaching this objective include the provision of inservice training for first-grade teachers, the improvement of the kindergarten reading readiness program, and the implementation, in first grade, of a continuous-progress reading program. In order to carry out these improvements, personnel and materials are needed; these resources are listed, together with their costs. Sources of additional revenue will also be identified. These cost and revenue estimates are used in the preparation of the budget.

Instructional Alternatives

Small rural schools provide a number of possible educational advantages, including closer student-teacher relationships and a deeper involvement of students in the life of the school (Barker and Gump, 1962). Experiments in rural school improvement should build upon these strengths and should not emulate the instructional and organizational procedures which are more appropriate for large schools. In this connection, a number of rural school projects have been initiated which involve new ways of organizing time and space within the classroom. Other projects use modern technology to improve instruction (Wilson, 1970).

Rigid scheduling procedures that force activities into a fixed time frame may result in a waste or misuse of the time of teachers and students. In small schools, the problems imposed by scheduling are particularly severe.

Some experimental programs for small schools have attempted to resolve this problem by instituting the following practices:

> Longer periods scheduled four times a week instead of five
>
> Rotating periods that give each class more opportunity to meet at optimal times of the school day
>
> Morning and afternoon schedules that are interchanged every two weeks
>
> Two or more master schedules that can be exchanged almost at will [Catskill Area Project in Small School Design, 1959: p. 11].

Other innovations involving an improved use of teachers' and students' time include multiple class arrangements, continuous progress education, nongraded curricula, independent study opportunities, and the individualization of instruction. Team teaching may permit the special skills of teachers to be fully utilized. Correspondence courses may be used for subjects for which qualified teachers are not available. Where especially prepared learning materials are available, students will be able to proceed at their own pace. Some districts use teacher aides to free teachers from the performance of nonteaching activities. Some rural areas have had considerable success in utilizing community volunteers for broadening the curriculum and ensuring a variety of supporting services, such as lunch and recreational programs.

Often a decision must be made whether students should be transported to central facilities where a variety of services are available, of if, instead, additional attempts should be made to deliver the services to students. While the first alternative has, traditionally, been preferred, there are areas of the country where, because of population sparsity or poor roads, transporting students to central locations is not feasible. Transportation problems are particularly serious in the case of very young students.

Modern technological developments have facilitated the instruction of children in classrooms and homes in remote areas. Programs designed for preschool children, when supplemented by appropriate materials and by home visitation, may be a good substitute for school-based early childhood education. Alford and Hines (1972) reported a demonstration of a home-oriented early childhood program with three interlocking components: (a) a daily televised lesson in the home; (b) weekly visits to the home by a

paraprofessional; and (c) a mobile classroom to serve the needs of twelve to fifteen children gathered for group instruction for an hour and one-half, once a week. They reported that the program compared favorably in effectiveness with traditional programs, while the cost was only one-half as much per pupil.

Other useful types of electronic communication equipment include audio-tape recording equipment, information retrieval systems, single concept projectors, and teaching machines which use branching and linear programs (Wilson, 1970: p. 23). Some school districts are experimenting with the use of electronic equipment on buses, to reduce what is otherwise a waste of the valuable time of students (Wilson, 1970: pp. 24-25). The amplified telephone provides an exciting way of linking isolated classrooms to individuals and groups many miles away. Through this medium, students can address questions to specialists in a given field. Instruction through telephonic communication has also been reported. A recent document described how an instructor in Nevada, using the telephone and an overhead projector, taught art simultaneously to classes located in Oregon, Idaho, Utah, and Nevada (Shared Services, 1968).

Mobile vans, especially designed to supplement aspects of the curriculum or provide ancillary services, are used in various parts of the country. Such vehicles may provide media-assisted instruction in science or foreign languages. They may be equipped with teaching machines and literature to assist with career counseling. Portable science laboratories can be designed to bring equipment and special instruction to isolated schools. Medical and dental services can be provided on a similar basis.

While these innovations may represent improved ways of using existing resources, they usually require additional revenues of a more flexible nature than are available through the basic state-local financial system. Funding procedures for instructional alternatives will be discussed in Chapter 3.

Organizational Alternatives

In their search for efficient methods of providing education in rural areas, school board members and administrators may consider organizational as well as instructional alternatives. In some cases, improvements can

only come through a reorganization of school district boundaries or through the consolidation of attendance units. In other cases, interdistrict cooperation provides the best solution.

School District Reorganization. Attempts to improve rural education in the United States have frequently involved the reorganization of school districts. Reorganization, usually consisting of substituting a relatively small number of districts for a larger number of low-enrollment districts, provides within each district access to a broader tax base, thus reducing interdistrict inequalities in the ability to support education. Reorganization also permits the employment of well-qualified administrators and the hiring of specialists in a variety of areas. Reorganized school districts can often provide central libraries, efficient pupil transportation systems, psychological testing, and vocational education.

The number of school districts in the United States has decreased from over 100,000 in 1945-46 to fewer than 17,000 today. A large part of this decrease is the result of a drastic cut in the number of districts which consist of a one-room school and from the virtual elimination of nonoperating school districts. However, many small districts remain. Today, about 32 percent of the nation's school districts enroll less than 300 pupils; this situation suggests the need for additional reorganization. The persistence of many small elementary and secondary schools is also indicative of the need to consolidate attendance units. In some instances, small schools are a necessary result of population sparsity, but in many cases, schools which are too small to provide an adequate curriculum or to permit the employment of qualified personnel have persisted, even when good alternatives have been available.

Table 6 suggests that one-room schools are virtually disappearing, except in the most isolated parts of the country. A more serious problem is the persistence of high schools which are too small to provide the type of curriculum needed to prepare young people for life in a complex society. In his survey of small high schools in the United States, Gann found that substantial numbers of such schools were necessitated by geographic conditions (Gividen, 1963: p. 7).

In short, despite progress in the reorganization of school districts and in the consolidation of school attendance units, many rural children

Table 6

Numbers of One-Room Schools in Selected Years

Years	Number of One-Room Schools
1929-30	149,282
1937-38	121,178
1947-48	74,096
1957-58	25,341
1963-64	9,895
1965-66	6,491
Fall, 1970	2,143

SOURCE: Digest of Educational Statistics, 1971 Edition (Washington, D.C.: U.S. Department of Health, Education, and Welfare, National Center for Educational Statistics, 1971), p. 45.

are provided with a limited set of educational services. Increased attention has recently been paid to the intermediate unit of school organization as a means of broadening the curriculum in rural areas and of providing a wide variety of services to both children and teachers.

Intermediate Units of School Organization. Intermediate units have been legalized in many states as a means of providing a wide range of services at reasonable cost. Such units (see Hooker and Mueller, 1970: p. 57) have a variety of names, including intermediate district (Michigan), supervisory union (New England) and board of cooperative educational services (Colorado, New York, and Wyoming). Among the services provided by intermediate units are the following: programs for gifted and handicapped children; vocational education; consultants, supervisors, and curriculum specialists; continuing education for teachers; instructional materials centers; educational television; and data processing services (Thomas, 1968: p. 306).

The ability of intermediate units to provide the necessary services depends on the adequacy of their organization. Four criteria are especially important: their size, their relationship to local units, their method of financing, and their leadership. These criteria are discussed in the following paragraphs.

a. Size. There may be a tendency to unduly restrict the size of intermediate districts. It was found in Michigan that larger intermediate

districts had lower per pupil costs and provided more extensive services. Smaller intermediate districts spent a larger proportion of their budget on administration than larger districts (see Table 7). Intermediate districts of 50,000 students and over spent the smallest percentage for administration and the highest for instruction (Thomas, 1968: p. 318).

Table 7

Total and Per-pupil Expenditures of Intermediate School Districts 1965-66

ISD Size: Number of Students	Total Instructional Expenditures (Per Pupil)	Total Administrative Expenditures (Per Pupil)	Total Operating Expenditures (Per Pupil)
50,000 and over	$2,772,773 ($2.20/pupil)	$814,520 ($ .65/pupil)	$3,901,064 ($3.10/pupil)
25,000-49,999	$1,620,693 ($4.67/pupil)	$621,430 ($1.79/pupil)	$2,411,972 ($6.95/pupil)
10,000-24,999	$1,069,224 ($5.79/pupil)	$471,243 ($2.55/pupil)	$1,672,760 ($9.06/pupil)
Less than 10,000	$ 777,674 ($5.28/pupil)	$480,224 ($3.26/pupil)	$1,370,351 ($9.10/pupil)
TOTAL (Average)	$6,240,364 ($3.22/pupil)	$2,387,417 ($1.23/pupil)	$9,356,147 ($4.82/pupil)

SOURCE: Reprinted by permission from a book by J. Alan Thomas, School Finance and Educational Opportunity in Michigan (Lansing: State Department of Education, 1968), p. 319.

b. Relationship to local units. The districts within an intermediate unit often vary in size as well as in financial and human resources. In cases where functions overlap, conflict may arise between the intermediate unit and the larger local districts. Including members of the local school boards on the board of the intermediate unit helps to provide coordination at the policy-making level.

c. Method of financing. The method of financing intermediate units varies across the country. In some states, such units have independent taxing power. In several states, where intermediate units are organized

at the county level, part of the county's taxing power is available. State grants are provided directly to intermediate units in some states. In others, financing is carried on largely through payments from local districts for services received. Many intermediate units recieve funds from a combination of sources, including agencies at the federal, state, and local levels.

d. Leadership. If the intermediate unit is to live up to its full potential, well-qualified leadership must be available. However, the available data suggest that, by and large, salaries paid to intermediate unit superintendents are considerably lower than those paid to local district administrators. It is recommended that the office of intermediate superintendent be recognized as a highly significant one and that appropriate salaries be paid to attract competent, well-qualified educational leaders to that office.

In summary, intermediate units of educational government specialize in the production of services for which the per pupil cost decreases as the number of students who are served increases. Hence, these units provide an admirable way of broadening the scope of rural educational offerings at reasonable cost per pupil. In many parts of the country, rural school districts might profitably support the expansion of the functions of these units.

Other Service-Producing Agencies

Title III Centers. A major move toward program enrichment in both the urban and the rural areas of the country was achieved with the implementation of Title III of the Elementary and Secondary Education Act of 1965. The Act called upon the Commissioner of Education to carry out a program "to stimulate and assist in the development and establishment of vitally needed educational services. . . and. . .of exemplary elementary and secondary school educational programs to serve as models for regular school programs" [Committee on Education and Labor, 1971: p. 49].

While there is evidence that Title III funds were disproportionately used to improve education in urban centers, an impressive variety of programs were also established in rural areas throughout the country. Among the programs reported (Project Report, 1969: pp. 21-22) were the following: (1) amplified television and educational television: Stamford, New York; (2) exemplary programs in elementary science: a seven-county area of

east-central Kansas; (3) social science offering, museum visitation program, and home visitation program: New Hampshire; (4) center to maintain, store, and circulate audiovisual equipment: Juneau, Alaska; and (5) early education and continuous-progress reading program: Watkinsville, Georgia.

With the decline in funding, a number of Title III programs have been discontinued. However, the Title III centers have provided considerable stimulus for the growth of interest in regional shared services.

Regional Educational Laboratories. Among the regional laboratories established under Title IV of the Elementary and Secondary Education Act, two which remain in operation are specifically oriented to the provision of leadership and educational services for rural school systems. These are the Appalachian Regional Educational Laboratory, located at Charleston, West Virginia (Director: Benjamin Carmichael) and the Northwest Regional Educational Laboratory at Portland, Oregon (Director: Lawrence Fisk).

The Appalachian Regional Educational Laboratory has encouraged the development of educational cooperatives. The Northwest Regional Educational Laboratory has the following major goals: developing instructional leadership to improve teacher competence, improving education for culturally different children, and improving instruction in small schools.

Educators in the Appalachian area have access, as well, to services provided under the auspices of the Appalachian Regional Commission, Washington, D.C. The Applachian Regional Commission encourages the development of regional education service agencies, which are combinations of two or more school districts joined together to provide a service which could not be provided as well or as economically by a single district (Hearings Before the Select Committee, 1971: p. 66). Services provided by these agencies include modern technology, administrative and management services, special education services, career education, and federal program coordination.

Educational Cooperatives. Educational cooperatives are formed when districts combine to provide a service which they could not separately perform effectively or efficiently. States vary in their approach to these units. Some states have permissive legislation allowing their formation. Others expect intermediate districts to perform the functions of cooperatives, although intermediate districts are often too small for this purpose.

In states where no appropriate legislation exists, districts may be reluctant to engage in cooperative ventures. It has been suggested (Project Report, 1969: p. 123) that the lack of such legislation has resulted in the discontinuation of some useful Title III centers when federal funding was no longer available. Hoyt (Hearings Before the Select Committee, 1971: p. 110) has spoken to the need for permissive legislation within the states covered by the Appalachian Regional Commission. Except in cases where intermediate units are already performing the needed functions, states have much to gain by legalizing and encouraging the formation of educational cooperatives.

In contrast to Title III centers, cooperatives are usually supported by the member districts, which share the costs of providing services. The regional education service agencies, mentioned above in our discussion of the Appalachian Regional Commission, are examples of educational cooperatives. (For a description of the function of educational cooperatives, see Shared Services, 1968 and Kohl and DuPuis, 1970.)

Budgeting

A wide variety of instructional and organizational alternatives are available to educational planners. Selections from among the alternatives may be made on the basis of school district objectives, local preferences regarding organization and instruction, and availability of funds. The financial dimension of planning is explicitly treated in the budgetary process.

Budgeting consists of translating educational programs into financial terms. Newer developments such as "program budgeting" and PPBES require that the relationship between the educational objectives, the educational programs, and the budget be stated explicitly. In addition, the budget requires that revenues be balanced against planned expenditures. In some cases, the budget will indicate the need for additional revenues to permit the achievement of the desired objectives. Chapter 3 deals with the problem of revenue planning. In other cases, the limits to available revenues may require the elimination of programs designed to meet low priority objectives.

Even if the planning approach to budgeting is not practical for the

entire budget, specific programs may be approached in this manner. These programs may include portions of the curriculum (for example, reading) in which significant improvements may be desired. Programs for students who have been poorly served by the school system may be included. For example, program budgeting may be used in planning curricula for migrant children, children from low-income backgrounds, handicapped children, or specially gifted children.

Evaluation and Accountability

Whether all or only a part of the educational program is included in the planning process, a final step is involved. There should be a careful evaluation of the success of the program in meeting the desired objectives. The results of the evaluation are then fed back into the planning process.

An essential aspect of planning is the design of procedures for evaluating progress toward objectives. Evaluation procedures, including the selection of appropriate instruments, should be specified in advance. In addition, there should be well-formulated procedures for using the results of evaluation in restating objectives and in revising instructional procedures.

Considerable emphasis has been placed, in recent years, on the importance of accounting to the public for the results of instruction. The term accountability has been defined to imply the following: (1) stating educational objectives in behavioral terms; (2) evaluating the results of instruction; and (3) making the results known to the public. In more general terms (Browder, 1971: p. 1), accountability means holding educators responsible to members of the public.

In contrast to districts in urban areas, rural school districts often find that accountability presents only a few problems. In the first place, rural areas with homogeneous populations may agree readily on the role of the school. In contrast, urban schools must serve many subpopulations, each of which has its own expectations for the educational system. Furthermore, rural schools have often been characterized by good communication between educators and the general public. The community school movement, in which the boundaries between school and community are minimal, originated in the rural areas of Applachia. In his "Forcword" to Elsie Ripley Clapp's

description of community schools in Appalachia in the 1930's (Clapp, 1939: p. ix), John Dewey pointed out that rural schools provide the best opportunity and indicate the deepest need for community education. Indeed, in the modern movement toward greater accountability, rural community schools have been emulated in some urban areas.

Some rural communities, to be sure, contain racial or socioeconomic minorities which have not been adequately represented in the decision making process. It is essential that such groups be involved in educational planning and that rural schools recognize their responsibility to underprivileged students. Accountability implies active efforts to respond to the needs of all portions of the rural community.

Summary

The first ingredient in successful planning is the specification of needed improvements in educational outcomes. These outcomes should be based on the assumption that rural youth must be prepared for a variety of futures, including living and working in the cities, as well as embarking on careers in rural areas of the country. Not only should the rural child who wishes to go to college be adequately prepared, but also the child who plans to enter the labor force on leaving school should be given adequate counseling and vocational preparation.

The second ingredient in planning is the organization and construction of educational systems which will bring about the desired results. The third aspect of planning consists of evaluating the results of the changes which are made. Comprehensive planning is a complex and expensive undertaking. At present, few state departments of education are staffed to provide the necessary assistance. In order to facilitate comprehensive educational planning in the rural districts, an upgrading of the planning capabilities of state education agencies is strongly recommended. Where intermediate units or regional planning organizations are involved, they should be assured of the needed resources and personnel.

A variety of instructional alternatives have been devised especially for rural schools. Capitalizing on the potential strengths inherent in small schools, these high quality programs can, in many cases, be provided at reasonable cost. Unfortunately, several of the projects which stimulated

these alternatives have been terminated, while the reduced funding of Title III programs has prevented additional stimulus from this source. New federal and state financial legislation should emphasize programs designed to improve the efficiency of rural educational systems.

A major impediment to the improvement of rural education is the persistence of inefficient school districts and of schools which are too small to offer an adequate educational program. Additional state legislation is needed to continue the process of school district reorganization and of school consolidation. Intermediate units of organization are increasingly providing a comprehensive set of services at relatively modest cost. While such units are not a substitute for improvements in the local organization of school districts, they are rapidly becoming an essential link in the total educational system. Educational cooperatives, in some states, are also performing a unique function. State agencies should legalize and encourage the development of educational cooperatives, unless intermediate units are organized to provide the necessary variety of services.

Planning for educational organizations entails assuring an adequate flow of revenues to permit program plans to be implemented. It is time now to turn, in Chapter 3, to a discussion of revenue sources for rural schools and to procedures for maximizing the flow of funds.

Chapter 3

REVENUES FOR RURAL SCHOOLS

High quality rural educational systems, which are designed to meet the future needs of a diverse student body, now offer a variety of services provided through the combined efforts of a number of agencies. However, to make such services available, these agencies—local school boards, educational cooperatives, experimental centers, intermediate units, and state departments—require revenues to purchase equipment and supplies, as well as to hire personnel. Funds are also necessary to ensure that education-related organizations, such as public libraries, museums, health centers, and public television corporations, are adequately supported.

Chapter 2 emphasized the importance of planning in ensuring that the resources provided for rural education result in observable improvements in the achievement of important outcomes. An important aspect of the planning process is budgeting, defined as the use of formal procedures for listing anticipated revenues and expenditures. The application of planning techniques to educational finance requires an explicit statement of desired objectives, a list of needed resources (including personnel, supplies, and equipment), and a statement of anticipated expenditures and revenues.

As part of their planning for the improvement of rural education, school boards become involved in estimating future revenues. This chapter examines the major sources of funding available for rural educational systems, namely, the local tax base, state grants in aid, federal programs, and, to a lesser extent, private foundations with interests in education.

Local Revenues for Education

Education in the United States is, by law, a state responsibility. All states (Edwards, 1955: pp. 54-57), except Hawaii, delegate to school districts a large part of the responsibility for operating the schools. States also determine the relative proportions of state and locally collected taxes used for supporting education.

There is considerable variation among states in the proportional reliance on state and local taxes for financing public schools. Local taxes provide over one-half of the total operating costs of all public elementary and secondary schools in the United States; however, there is great

deviation in the amount collected in individual states. About 88 percent of educational revenue is derived from local taxes in New Hampshire, as compared to about 20 percent in Alabama. There is also variation within states, with some school districts depending heavily on local sources of revenue and others relying in large part on revenues received from the state.

Over 90 percent of local revenues used for current operating costs by U.S. public elementary and secondary schools is derived from taxes on real and personal property. The property tax is therefore of central importance to the financing of rural education; it also plays a central role in local educational planning.

The Property Tax

Property taxes are levied on real property and on personal tangible and intangible property. Real property consists of land and improvements, while tangible personal property is comprised of motor vehicles, household goods, clothing, jewelry, business equipment, business inventories, farm equipment, and farm animals. Intangible personal property, which is made up of cash and its equivalents, is of minor importance. Netzer (1966: p. 141) reported that in 1965 all intangible personal property was part of the legal basis for local general property taxation in only nine states. (In a tenth state, Alaska, intangible personal property may be taxed at the option of the locality.) Taxation of tangible personal property is more widespread; however, Netzer found that "substantially general coverage exists in only sixteen states with 31 percent of the country's population [and that]. . .agricultural equipment and inventories are generally taxed in only forty-two states, although permissive local exemptions of particular types of agricultural property are widespread" [p. 143].

The effect of the property tax on local educational finance varies from community to community. Each local school board and administrator must, therefore, examine the local situation and develop the most appropriate strategy for deriving revenues from the property tax base. The following statements are applicable to much of the country:

1. By and large, the property tax is poorly administered. Thomas (1968) reported two basic reasons for the widespread inaccuracy of property assessment:

a. The elusive nature of the magnitude which the assessor is trying to measure, namely, the market value of the property. This magnitude is essentially hypothetical of fictional. The assessor is asked to estimate what price the property would bring if hypothetically the property were to be offered for sale. The more unusual the property, the greater the difficulties of measurement.

b. The inadequate training and qualifications of tax assessors [p. 185].

Poor assessment practices tend to result in an unfair distribution of the tax burden, both within a taxing jurisdiction and among jurisdictions. In some districts, an underassessment of property may result in an inadequate flow of revenues for education. Revenues from the property tax may also suffer because a poorly administered tax produces resentment among taxpayers. Rural educators should support attempts to reform the property tax system, except in those few states where substantial property tax reform has already been accomplished.

2. The property tax presents special problems in agricultural areas. Netzer (1966) pointed out that while "in nearly all states, the overall effective rates on farm real estate are well below the rates on nonagricultural real property," it is also true that "farmers do pay substantial property taxes relative to farm income and farm net product." He concluded that "the disparity between the tax/income and the tax/wealth relationships is, of course, a reflection of the markedly lower rate of return in recent years on investment in farm property relative to nonagricultural investment" [p. 28].

The combination of low property tax rates and a heavy tax burden relative to income will probably continue to depress expenditures for education in agricultural areas. Difficulties in increasing rural tax rates diminish the availability of property tax revenues for improving and expanding educational programs.

3. Benson (1968) pointed out that the "prime case for the property tax rests upon its stability of yield"[p. 122]. During periods of economic stress, the yield from the property tax may be maintained at its usual level, while income and sales tax yields may decline. School boards are, therefore, in a position to provide school buildings and hire teachers, secure in the knowledge that the property tax will continue to provide a source of support,

regardless of the course of the economy as a whole. Hence, the property tax is a useful vehicle for educational planning.

The Property Tax and Educational Planning. Educational planning requires the projection of both costs and revenues for several years. Such projections are easier in the case of the property tax than in the case of other sources of school district revenue. In making such projections, neither the tax base nor the tax rate need to be accepted as "given" since educators may influence both.

1. Tax base. The tax base is the total assessed value of real and personal property. Revenue projections should take into consideration estimated increases in the property tax base owing to new residential, industrial, or business construction or to increased business inventories. Plans developed at the state or county level to reassess property will have an important effect on local revenue projections. Other variables which can affect the rural tax base include new highways, nearby industrial development, or the rezoning of rural land adjacent to urban areas.

School boards and educators may influence the growth of the tax base by ensuring that new buildings or other improvements are entered promptly on the tax rolls. On occasion, school boards may be forced to protest the underassessment of real or personal property. There have also been instances of school board members and educators joining forces with other community groups in efforts to entice new industry into an area.

2. Tax rate. Revenue planning includes studies of potential tax rate increases. Such studies require information about state-determined tax ceilings and about plans for increasing the property tax rate. An examination of local attitudes toward the property tax rate is often desirable. Community participation in educational planning may in some cases bring about an increased willingness to raise property tax rates.

Projecting local revenues. Locally collected taxes are important elements in the total flow of revenues for education in most rural areas. Hence, projections of local revenue which take into account anticipated changes in the tax base, the tax rate, and the enrollment are essential. Schedule 1 summarizes the data included in such projections.

Local revenue planning should also take into consideration the possibility that substantial amounts of money may be obtained from nontax sources.

Schedule 1

Projection of Local Tax Support
1973-1977

Year	(1) Tax Base	(2) Tax Rate	(3) Enrollment	(4) Revenue (1) x (2)	(5) Tax Base Per Pupil	(6) Local Revenues Per Pupil
1973						
1974						
1975						
1976						
1977						

For example, local industries may be able and willing to provide financial and other assistance in addition to the property tax they pay, since high quality education is often an important factor in attracting and retaining employees. Parent-teacher associations and other organizations may raise money for the improvement of present educational programs or for the provision of new services.

In summary, local tax revenues constitute, on the average, a large portion of the money needed to support local schools. Such revenues are, however, only part of the total financial system. Flows of funds from state and federal governments are also needed if the improvement of rural educational systems is to continue.

State Financial Support

Each state has the constitutional responsibility for assuring that all its young people are adequately educated; hence, state leadership is required in the improvement of rural education. The responsibility of the state consists of coordinating the efforts of various educational agencies, providing technical and intellectual support, and ensuring adequate systems of educational finance.

Many states have recognized for some time that population sparsity results in increased per pupil costs. To compensate for the increased costs,

they have developed weighting systems (see Table 8) which require fewer pupils per teacher unit in small schools than in larger schools.

An alternative method of calculating the distribution of funds to sparsely populated school districts is to count each pupil in a small school as more than one. As an example, the weighting procedure used in North Dakota is shown in Table 9.

Table 8

Calculation of Teacher Units: Texas

Average Daily Attendance	Number of Teacher Units
15-25	1
26-109	2 for the first 26 pupils and 1 for each additional 21 pupils (no credit for fractions)
110-156	6
157-444	1 for each 24 pupils or fraction in excess of .5

SOURCE: Public School Finance Programs, 1971-72, edited by Thomas L. Johns, DHEW Pub. No. (OE) 73-00001 (Washington, D.C.: U.S. Government Printing Office, 1972), p. 318.

Categorical Grants

Many states encourage the implementation of specific programs by means of special purpose or categorical grants which, when used effectively, stimulate the development of important curricular areas. Categorical grants are associated with specific programs rather than with the general purposes of educational organizations; they may be channeled through cooperatives or intermediate units, or they may be transmitted directly to local school districts. When categorical grants provide less than the full cost of the program they are intended to fund, however, districts have to decide whether to decline the grants or to reallocate funds from the general budget to the partially funded programs. Hence, categorical grants may, in certain circumstances, be most beneficial to the larger, more affluent districts which can afford to provide the necessary matching funds.

Table 9

Weighting of Average Daily Membership:
North Dakota

Type of School	Weighting
One-room schools	1.25 weighted pupils for each of the first 16 pupils in average daily membership, with no allowance for pupils in excess of 20.
Other small elementary schools of less than 100 average daily membership	1.0 weighted pupils for each of the first 20 pupils, with 1.0 weighted pupils for each additional student in average daily membership. No allowance for pupils in excess of 35 per teacher.
Other elementary schools	.9 weighted pupils per student in average daily membership. No allowance for pupils in excess of 30 per teacher.

SOURCE: Public School Finance Programs, 1971-72, edited by Thomas L. Johns, DHEW Pub. No. (OE) 73-00001 (Washington, D.C.: U.S. Government Printing Office, 1972), p. 251.

Grants for special education. It is commonly agreed that special educational services should be provided for students who are physically or mentally handicapped. These services may be more costly than the basic program, since handicapped children require specially trained teachers and since it is believed desirable that classes for handicapped children be relatively small. Also, specially designed rooms, equipment, and materials are often needed.

To provide for these additional expenses, most states give financial assistance to school districts offering programs in special education. The procedures for calculating such grants vary among states. A U.S. Office of Education publication (Public School Finance Programs, 1972) reported that some states, for example, Oregon (p. 272), provided to the school districts the additional money required to offer classes for handicapped children; others, for example, Ohio (p. 256), allowed additional teacher units,

depending on the number of handicapped children in the district; still others, for example, Arizona (p. 20), provided a dollar amount per handicapped child taught in the district.

In sparsely settled rural districts, there are often too few handicapped children to justify offering special programs. The frequent result is a lack of essential services for rural children (Thomas, 1968: pp. 32-34). Some states provide tuition assistance to permit handicapped children to benefit from programs in adjacent districts. In other cases, parents may be forced to move to a district which offers an appropriate program.

In a recent court decision (Pennsylvania Association for Retarded Children, Nancy Beth Bowman, et al., v. Commonwealth of Pennsylvania, David H. Kurtzman, et al.), it was ruled that school districts are not excused, by virtue of population sparsity, from offering programs in special education to handicapped children. Vergason (1971) discussed the implication of this ruling for educational accountability in rural school systems.

In order to equalize the availability and financing of special education programs, it is recommended that states mandate the provision of appropriate programs in special education and pay the entire cost of such programs. In sparsely settled areas, it is often desirable to offer these programs through intermediate units of school organization.

Transportation Assistance. To ensure their access to appropriate curricula and related services, pupils in most of rural America are transported to central locations. Pupil transportation is especially important at the secondary school level, where a number of courses, facilities, and equipment are needed if young people are to be prepared for life in modern society. Pupil transportation is expensive because of the high cost of equipment, maintenance, and drivers. Often ignored is another major cost factor in pupil transportation—the enormous amount of unutilized student time which riding in buses entails.

If states are to equalize the ability of local districts to provide sound educational programs, they should pay the entire cost of pupil transportation. However, if states are to be required to pay transportation costs, local and regional authorities should be required to utilize the most efficient methods available in planning bus routes. Through regionalized

planning, duplications of bus routes can be avoided, thus reducing total costs. Such planning should also reduce the cost in student time. Costs could also be reduced by pooling the purchase of transportation equipment.

Financing School Facilities

Decisions about the design and location of school buildings have important educational and financial implications. Because new facilities will affect educational programs for many years, decisions about school locations are important elements in the planning process. The location of a school and the boundaries of its attendance area will determine its enrollment and hence the type of curriculum which it may offer. The choice of a location for a new school should reflect a careful study of population projections. Hence, regional or state-wide planning agencies must often be involved in decisions about new locations, since it cannot be assumed that the present school district boundaries will remain unchanged for an indefinite period in the future.

The manner in which school construction is financed also has implications for educational planning. Funds usually must be obtained through the sale of debentures, which will be retired over a period of up to thirty years. Interest costs, which constitute a major portion of the total cost, are often high in poorly organized districts with a limited property tax base. Moreover, poorly planned buildings are likely to constitute a charge on the tax base beyond the period of their usefulness. Finally, as was noted in Chapter 2, [illegible]sign of school buildings places a limit on the types of instructio[illegible] may be utilized. Hence, poorly planned structures may perpetuate [illegible]eady outmoded curriculum and set of procedures for teaching and learning.

It is therefore recommended that the state participate in decisions concerning the location and design of new school buildings (for an example of state leadership in rural school design, see Rural Alaskan Schools: Educational Specifications, 1971). It is also recommended that states move toward assuming the full cost of all new school buildings and of debt retirement for existing buildings.

School Support Formulae

The efforts of school finance specialists in universities and state depa[illegible]tments of education have for many years been directed toward determining

an "ideal" method for a sharing of educational costs by the state and local districts. In much of the country, a two-step process provides the basis for calculating state grants to school districts. The first step is to define a foundation or basic level of education, either in terms of a fixed number of dollars per pupil or in terms of the number and qualifications of professional personnel. The second step is to define a local sharing ratio, usually in terms of a tax rate on the assessment of local property.

The main purpose of the formula approach is to ensure that all school districts are treated equitably. Such mathematical impartiality was especially important before World War II, when many states contained hundreds and even thousands of school districts. As the number of school districts decreases, states may increasingly provide assistance on the basis of the specific needs and characteristics of each district.

A number of objections to traditional educational finance procedures have been raised. Some criticisms which are particularly relevant follow:

1. Without state supervision of the assessment process, the above method of calculating state aid may lead to unintended inequalities among districts. If property is underassessed in some districts relative to assessments elsewhere in the state, the flow of funds will be distorted. In states where assessments are completely unreliable, alternative methods of calculating local taxpaying ability are necessary.
2. Property value is a poor index of taxpaying ability in a modern, industrial society. Agricultural areas which have high ratios of property value to income may be at a disadvantage, since they may receive less state aid per pupil than districts with a more favorable ratio of income to property.
3. Foundation programs equalize only to a given level. Above this level, costs are borne by local taxpayers. Expenditures above the foundation level often result in unequal benefits and burdens. In general, the wealthier districts spend more per pupil than the less wealthy districts; in addition, wealthier districts often have lower tax rates than their less fortunate neighbors. High-expenditure districts seldom include agricultural and other rural areas, except for those which include special installations, such as power dams or large amounts of railway property.

Inequalities in educational finance have resulted in a series of law suits, based on the equal protection clause of the United States Constitution or on state constitutions (for example, John Serrano, Jr. v. Ivy Baker Priest). Several courts have been receptive to the argument that present school finance procedures deprive children in the least wealthy districts of their basic rights. Although the Supreme Court decision to overrule the decision of the three-judge Federal District Court in Demetrio P. Rodriguez et al. v. San Antonio Independent School District et al. has reduced the pace of legal challenges to inequalities in educational finance, the controversy has persisted. Wise (1967, 1971) discussed the constitutional issues involved in these cases, while an earlier series of studies by James (1961), and James, Thomas, and Dyck (1963) documented interdistrict inequalities and showed their relationship to taxpaying ability.

This litigation has stimulated a renewed interest in the reform of educational finance. The main thrust of the proposed reforms is to eliminate the close relationship which now exists between locally based wealth and both expenditures and tax rates. One proposal, commonly termed "power equalizing," is to establish a direct relationship between a given tax rate and a given expenditure level for all districts. Coons (Coons, Clune, and Sugarman, 1971) presented, as an example, a situation in which a hypothetical state provides a flat grant of $700 per average daily enrollment from state taxes:

> Each district may add on from $25 to $500 per ADE [average daily enrollment] according to the rule that for each additional tax mill. . . on $100 taxable value of local property, an additional $25 per pupil may be spent. If a mill raises less than $25 per pupil. . . the state makes up the difference; if it raises above $25, the excess is redistributed as part of the state subvention to poorer districts. Thus, if a rich district and a poor each add 16 mills to its rate, each could spend a total of $1100 per pupil [p. 116].

The main advantage of this proposal is that it eliminates interdistrict inequalities based on local wealth. In addition, it permits districts to determine their preferred expenditure levels and hence to plan their unique educational programs. However, from the point of view of the rural educator, the proposal may have serious drawbacks. In those impoverished rural areas with limited aspirations for the education of young people, tax rates and expenditure levels would probably be low. In agricultural areas which have

a high ratio of property value to income, property tax rates would probably be depressed. For these reasons, rural school districts would probably continue to spend less money per pupil than high income suburban districts.

An alternative proposal would be for the state to assume the major responsibility for financing education. Sufficient money to pay the full cost of education would be distributed to districts, either as equal dollars per student or as equal dollars per student with certain cost refinements. For example, a basic grant may be made on the basis of total enrollment, with additional money provided to defray the relatively high costs of vocational education, special education, and the education of economically disadvantaged children.

The necessary funds would be collected by the state utilizing sales and income taxes and, possibly, a state-collected property tax. Full funding of educational costs would have particular advantages for many rural school districts. It would permit an improvement in salaries and fringe benefits for professional personnel, thereby increasing the attractiveness of rural areas to potential teachers and administrators. It would shift the tax burden in agricultural states from a heavy reliance on the property tax to an increased dependence on state sales and income taxes. Full funding would permit states to finance flows of services through intermediate agencies as well as through local school districts.

State Aid and Educational Planning

The formula approach to state aid has provided school districts with a stable source of revenues for supporting ongoing services. Categorical grants have been utilized as the means for encouraging the adoption of new programs, especially those designed to meet the needs of handicapped or gifted children. Whether or not states move in the direction of full funding of educational costs, an increased involvement by states in educational planning is desirable. More specifically, it is recommended that states perform the following functions:

1. State governments should continue to encourage the development of districts of sufficient size to permit both educational planning and the development of a full range of services. The use of intermediate units and educational cooperatives in providing services

should also be encouraged. Adequate financing should be available for the planning process.

2. States should provide direct assistance to local school officials for such purposes as identifying and applying for outside funds, specifying educational objectives, and evaluating the success of present procedures.
3. State technical assistance should be provided in developing programs designed to meet specified objectives. Such assistance is particularly essential in such curricular areas as vocational education.
4. States should continually review and assess the effects of their system of financing education. Resources should be linked to the achievement of desired outcomes.

A number of states have been involved, during the past few years, in the improvement of rural education. The Texas Small Schools Project, which is funded by the Texas State Education Agency and by local education authorities, is one example of such involvement. The Texas Small Schools Project is involved in such activities as teaching multiple classes and supervising correspondence courses. The project also emphasizes the use of teachers' aides, new teaching media, instructional materials centers, and flexible scheduling. Other examples of area projects aimed directly at improving small schools are the Oregon State Small Schools Improvement Project, which is funded by the Oregon State Education Agency, and the Alaska Rural Schools Program, which recieves part of its support from the state of Alaska (see Wilson, 1970).

Federal Revenues for Rural Schools

During the decade from 1959-60 to 1969-70, federal revenues for public elementary and secondary schools in the United States increased fivefold, from about $650 million to about $3.2 billion. This represented a growth from about 4.4 percent to about 8.0 percent of total revenues available for education (Simon and Grant, 1973: p. 60). Since 1970, the federal share has declined slightly in percentage terms, and it is not likely to show another major increase unless new federal legislation is passed.

There is great variation among states in the proportion of total revenues provided by the Federal Government. In 1971-72, the Federal

Government's share was about 28 percent in Mississippi, about 20 percent in New Mexico, but less than 4 percent in Idaho and less than 3 percent in Connecticut (Research Division, N.E.A., 1973: p. 50). Some rural areas of the country have received substantial amounts of federal funds, while others have had little or no benefit from the federal laws which provide support for public schools.

The nature of federal support varies among localities. In some areas, these funds do little more than replace revenues lost through the removal from the local tax rolls of property which is used for federal installations. In other places, substantial funds are available for improving the education of children from low-income families. Innovative approaches to rural education have been made possible through the funding of Title III centers; regional educational laboratories have also contributed to curriculum development and program improvement.

Since local needs differ and since federal programs undergo periodic changes in emphasis, no attempt will be made here to provide a comprehensive guide for the use of rural districts interested in seeking federal support. Such guides are available, and several are listed later in this chapter. Rural educators will need to keep abreast of recent developments at the federal level, including the following areas which have in recent months been given high priority:

1. The problems of racial isolation. The Emergency School Assistance Act, funded at a level of $249 million for the 1974-75 school year, is aimed at meeting the special needs incident to the elimination of minority group segregation and discrimination among students and faculty in elementary and secondary schools; encouraging voluntary integration in those schools with substantial proportions of minority group students; and aiding school children in overcoming the educational disadvantages of minority group isolation. For a description of the programs and procedures for applying, see "Emergency School Aid Act," 1973: pp. 9-11.
2. Career education. This program for children K-12 would guarantee each student (a) the basic academic skills essential for further occupational training or further education; (b) extensive counseling and guidance; (c) placement either in an entry-level job

or in a learning station for further education after graduation (Federal Dollars for Local Schools, 1972: p. 26; Pierce, 1973: pp. 4-6).

3. Education of the handicapped. The former Assistant Secretary of Health, Education, and Welfare, S. P. Marland, Jr., has called the education of the handicapped a major priority for the United States. He called for a commitment "to provide full educational opportunities for every handicapped child in the country by 1980" [Federal Dollars for Local Schools, 1972: p. 35]. Funding for this purpose is provided in the Education of the Handicapped Act; The Elementary and Secondary Education Act, Title I; and the Vocational Education Act, Amendments of 1968.

The Allocation of Federal Funds

How fairly are federal funds allocated? Do rural school districts receive their full share? Are rural districts favored over urban centers in the distribution of federal money as Berke and Kirst (1972) suggested? To what extent are rural areas penalized by lack of adequate staff for monitoring federal legislation and writing proposals?

It is difficult to answer these questions, partly because the Federal Government does not classify its distributions according to rural and urban recipients. In an attempt to follow through on its distribution of revenue, the Department of Health, Education, and Welfare (Economic and Social Conditions of Rural America, 1971) estimated that approximately $1.3 billion of a total of $4.0 billion, or 32.0 percent of its obligations for education, was distributed to nonmetropolitan areas. Estimates of the distribution of funds between metropolitan and nonmetropolitan areas were also made on a program by program basis. It should be noted that a definition of "metropolitan" is provided in the U.S. Bureau of the Census, General Social and Economic Characteristics (1972: Appendix A, p. App-4). About 31.4 percent of the total population of the United States lives in nonmetropolitan areas, while only 26.5 percent of the population is classified as rural. Table 10 summarizes this distribution on a program by program basis.

Table 10

Department of Health, Education, and Welfare
Expenditures in Metropolitan and Nonmetropolitan Areas
Fiscal 1970

	Millions of Dollars	
	Nonmetropolitan	Metropolitan
Elementary and secondary education:		
Educationally deprived children	$599.0	$727.1
Dropout prevention	1.3	4.3
Bilingual education	7.2	15.4
Supplementary educational centers	16.4	100.0
Library resources	4.1	38.4
Guidance, counseling, and testing	1.4	13.1
Equipment and minor remodeling	3.7	33.1
Strengthening state departments of education	4.7	25.1
TOTAL	$637.8	$956.5
School assistance in federally affected areas (impact aid):		
Maintenance and operation	$212.1	$295.6
Construction	1.3	8.9
TOTAL	$213.4	$304.5
Educational professions development: preschool, elementary, and secondary	$ 19.15	$ 75.0
Teacher Corps	$ 5.5	$ 16.1
Vocational education:		
Basic grants	$ 43.0	$288.0
State advisory councils	0	.9
Consumer and homemaking education	2.0	13.0
Cooperative education	3.8	10.2
Innovations	2.5	6.7
Curriculum development	.099	.775
TOTAL	$ 51.399	$319.575

Table 10 continued

	Millions of Dollars	
	Nonmetropolitan	Metropolitan
Libraries and community services:		
Library services	$ 5.0	$ 30.0
Construction of public libraries	1.3	3.7
College library resources	4.1	5.9
Librarian training	.866	3.1
University community services	2.8	6.[illegible]
Adult basic education	6.2	43.6
Educational broadcasting facilities	.3	1.8
TOTAL	$ 20.566	$ 94.8
Education for the handicapped:		
Preschool and school programs	$ 3.6	$225.6
Early childhood programs	.8	2.2
Teacher education and recruitment	8.6	21.8
Research and innovation	2.4	14.6
Media services and captioned films	.719	4.0
TOTAL	$ 16.119	$268.2
Research and training:		
Dissemination	$ 1.4	$ 5.1
Training	2.1	4.6
Civil defense education	.392	1.4
TOTAL	$ 3.892	$ 11.1
Civil rights education	$ 5.6	$ 10.8
Research and demonstration	$ 4.6	60.4
Child development: Follow Through, Headstart	$167.0	$239.0

SOURCE: The Economic and Social Conditions of Rural America in the 1970's; Part 2: The Impact of Department of Health, Education, and Welfare Programs (Washington: Department of Health, Education, and Welfare, 1971), pp. 87-88.

Federal Aid and Local Planning

Evidence cited throughout this report suggests that federal financial aid has already made a significant contribution to the improvement of rural education. Federal funds do have some drawbacks, notably related to the uncertainty imposed by the year-by-year granting of funds for some programs. On the other hand, such funds have provided flexibility, often permitting school districts to develop experimental programs which could not otherwise be supported. Furthermore, federal funding has, in a number of cases, helped to break down communication barriers among school districts and has tended to encourage regional, interdistrict approaches to the solution of educational problems.

Exemplifying this regional approach, some Title III centers in rural areas have, as was noted in Chapter 2, made significant contributions to the development of improved rural education systems. Many intermediate districts and educational cooperatives have also received federal funds, permitting them to extend the range of services they provide. The educational programs which have been supported by federal funds through the Appalachian Regional Development Act have attracted considerable attention. Federal funds have also supported the educational efforts of museums, public libraries, and public television.

Rural educators are often at a disadvantage in seeking federal support. Federal funds are channeled through a large number of programs and involve making application through a variety of agencies. Proposal writing and report submission are time-consuming activities; specially designated personnel are not always available to perform these responsibilities. The following sections discuss the problems of staffing, identifying programs, and writing proposals.

Staffing. Identifying potential sources of support, writing proposals, and monitoring the implementation of new programs require special kinds of expertise. The hard-worked superintendent and his staff often lack the time and the special competencies which these functions require. Hence, smaller and less affluent districts may sometimes receive less than their share of federal and foundation support. Rural districts should consider, alone, or in conjunction with others, establishing a position of coordinator of external funding. In some parts of the country, intermediate units may

assist local school districts in performing this function. State departments of education should provide technical assistance to rural areas, in order to help them obtain their share of available resources.

The coordinator of federal programs should not, however, be isolated from other members of the professional staff or from the community. In fact, as was pointed out in a recent publication (Federal Dollars for Local Schools, 1972: p. 18), teachers, principals, and community representatives can profitably be included in the planning process, including the search for outside funds.

Identifying Federal Programs. Federal funds are of two types, allocated and discretionary. Although proposals may be required to receive them, allocated funds are available on a formula basis. Such funds have already made significant contributions to rural education in much of the country. Funds for impacted areas constitute important parts of the educational budget in many rural school districts which contain federal installations or are adjacent to them. Regional branches of the U.S. Office of Education provide assistance to school districts wishing to ensure their full entitlement to impact funds. Funds available under Titles I and II of the Elementary and Secondary Education Act are also distributed on a formula basis; to obtain them, school districts should work through the appropriate officer in their state department of education. Careful planning will help ensure that these resources work toward significant improvements in the education of children from low-income families.

Allocated funds, especially those provided through Titles I and II of ESEA, are essential to educational planning and program development in most rural areas. School boards should obtain their full entitlement, utilizing the resources for program development, particularly for members of the target populations.

Funding possibilities inherent in the various federal discretionary programs should also be thoroughly canvassed. Local authorities need to contact the director of federal programs at their state department of education. This official is in a position to provide advice and technical assistance, as are other members of the state department of education. The regional office of the Office of Education, Department of Health, Education, and Welfare, is another potential source of information and advice.

In the case of certain programs, it is worthwhile to contact the appropriate program officer in Washington. Local congressmen can provide up-to-date information about the status of recent legislation related to education.

Fortunately, a number of manuals are available to assist local educational authorities in identifying appropriate programs. Some of these materials should be purchased, and a special collection should be maintained and kept up-to-date. Among the general purpose directories (see the Bibliography for complete citations) are the following:

Catalogue of Federal Education Assistance Programs: An Indexed Guide to the Federal Government's Programs Offering Educational Benefits to the American People (1972).

Federal Aid Planner: A Guide for School Administrators (published quarterly). This is a part of the Federal Aid Information Service, a comprehensive service of the National School Public Relations Association.

Rowland, Howard S. and Richard L. Wing. Federal Aid for Schools (1970).

Rural development programs should have an educational component. Coordinated programs can open up employment opportunities for young people and concurrently increase motivation by demonstrating that education leads to good jobs. A comprehensive guid to such programs is provided in Guide to Federal Programs for Rural Development (1971) by John A. Baker.

Specific references dealing with special categories of students and programs are of assistance to planners and administrators. Some areas of great urgency, which do not affect all districts, include the education of migrant children and of American Indian children. The following (see Bibliography for complete citations) are recommended:

Early Childhood Programs for Migrants: Alternatives for the States (1972).

Latham, Vicki. Money for Migrant Children: A Compilation of Federal Funding Sources for the Children of America's Seasonal Farm Workers (1972).

Marland, S. P., Jr. Indian Education and the Federal Government (1972).

Educators frequently may benefit from the experience of other school districts in program planning and development, particularly in the area of compensatory education, which is a prime activity of most Title I programs. The Directory of Selected Ongoing Compensatory Education Programs (1971),

by Adelaide Jablonsky, is useful to educational planners as a source of information about other programs, for the names and addresses of program directors are provided.

Writing Proposals. A number of manuals (for example, Rowland and Wing, 1970) are available to assist local personnel in writing proposals. A proposal should be a professional job, indicating a good grasp of the planning processes discussed in Chapter 2. In other words, a proposal should demonstrate knowledge of the community and the school system and of any cause and effect relationship implied in the selection of curricula, organizational modes, and instructional procedures. In addition, it should incorporate a budget which displays careful estimates of program costs and a sound and appropriate evaluation design.

Care should be taken to observe deadlines. The proposal should be carefully edited, and the final product (with the required number of copies) should be clear and readable.

The proposal should clearly indicate a commitment on the part of those who are to carry out the project. A carefully designed, imaginative project, which has a good chance of success, will undoubtedly impress members of the granting agency.

Grants From Foundations

Like the Federal Government, foundations are a source of potential support for a wide variety of educational programs. Since foundations are not subject to specific laws, they are able, in some instances, to consider unusual, high-risk proposals which government agencies are not in a position to support. The task of locating an appropriate foundation for a specific purpose is difficult and time-consuming. Although foundations, as a general rule, have not focused on rural education, several influential projects have been funded by the Ford Foundation:

1. The Rocky Mountain Area Project for Small Schools. Among the methods investigated were multiple classes, small group techniques, university-developed correspondence courses, community resources, Encyclopaedia Britannica physics and chemistry films, youth seminars, and variations in scheduling practices.
2. The Western States Small Schools Project. All states involved

in this project investigated, among other things, the use of self-instructional devices and programmed materials for individualized instruction and continuous progress education.

3. The Catskill Area Project in Small School Design. This project in east-central New York State comprised approximately twenty-seven small secondary schools. Areas investigated consisted of multiple-class teaching, correspondence courses, shared services, teacher aides, youth seminar programs, new approaches to scheduling, technological innovations, and Encyclopaedia Britannica physics films.

Foundations differ widely in their financial base and in their funding policies. Some are large and powerful; others are small in comparison. Some foundations are regional and will not consider proposals outside a given area; others are national and even worldwide. Some foundations are involved only in educational projects; for others, education is only one of many aspects of public activity in which they are interested.

A good deal of research is required before a decision is made to submit a proposal to a given foundation. Those considering such a step should first acquaint themselves with foundations which have relevant interests. The amount of money needed is a key factor; it is useless, for example, to ask for a grant of $100,000 from a foundation which only gives grants for a fraction of that amount.

As a beginning, the projects officer of the school district should have in his library the publications of The Foundation Center, 888 Seventh Avenue, New York, New York. These publications include The Foundation Directory, which contains basic information on a large number of foundations; Foundation News, a periodical which lists grants made by foundations according to field of interest; and The Foundation Grants Index, which contains a cumulative record of foundation grants.

School districts are particularly advised to determine whether there are regional foundations which have a commitment to the improvement of education in that part of rural America in which the district is located. National foundations which, through their previous grants, have indicated an interest in rural education are also good possibilities. A carefully developed, imaginative proposal which represents the aspirations of

competent and dedicated educators and laymen will, in all probability, find a sympathetic audience.

When a seemingly appropriate foundation has been located, the school district's projects officer should write to the main office of the foundation for its annual report and other available literature. Then it will be possible to verify the past interests of the foundation, its general policy, and the method of submitting proposals. The suggestions presented earlier, regarding the writing and submitting of proposals to federal agencies, will apply equally in the case of foundations.

Summary

Well-financed and appropriately organized school districts are essential if rural education is to be improved. Such districts will attract competent personnel and will utilize the best available knowledge to improve their curricula and their instructional procedures. They will also engage in long-term planning to ensure that their resources are used effectively.

Coordination among several levels of government is necessary if appropriate educational services are to be made available to students. Inter-district cooperation is often required to provide vocational education and to offer programs for handicapped and gifted children. Multi-district agencies, such as intermediate units, Title III centers, or educational cooperatives, have demonstrated their effectiveness in providing a variety of services. The total system for financing education should ensure that these agencies are adequately supported.

All three levels of government (local, state, and federal) participate in providing revenues for rural education. In many states, the local property tax still provides a major portion of total revenues for education. In such states, property tax administration is of prime importance, since a poorly administered property tax system limits the availability of revenues and causes inequalities among taxpayers. The state system for financing schools may also be distorted by a poorly administered property tax system. In much of rural American, therefore, property tax reform is a matter of some urgency.

Several courts of law have declared that inequalities in educational

opportunity based on differences in the taxpaying ability of local communities are in violation of either the state constitution, the Federal Constitution, or both. If rural students are to be provided with an education appropriate for life in modern society, the quality of their schooling should not be based on local taxpaying ability or on the willingness of adults in their community to support education. In view of the states' constitutional responsibility for the support of education, movement toward full state funding of schools is recommended.

The responsibility of the state is not limited to providing financial resources. State-wide planning is needed to ensure that revenues provided by the state are used effectively. State leadership in the planning activities of local and regional authorities is an important element in the development of improved educational systems in rural areas. State leadership will include the provision of financial and technical support for a variety of agencies, regional as well as local, which offer educational services.

Federal categorical support of programs designed to improve rural education should be continued. Students who attend rural schools often move to cities in other states; hence, high quality education for rural young people is of importance to the country as a whole. Continued federal support for a variety of purposes, including educational television, museums, libraries, health, vocational education, curriculum development, and the improvement of the education of the handicapped, is essential. The significant contributions which have been made toward improving educational opportunities for disadvantaged children should be continued.

Within this complex financial and organizational system, the rural educator plays the key role. He has the ultimate responsibility for assessing the needs of students, developing programs, and obtaining the needed resources. Administrators and school board members in rural communities should be provided with financial and technical assistance to permit them to meet the needs of their students.

APPENDIX

Table A-1

Percent of Population 25 Years Old
by
Years of School Completed
1970

Years of School Completed	Urban			Rural Nonfarm			Rural Farm		
	White	Negro	Spanish Heritage	White	Negro	Spanish Heritage	White	Negro	Spanish Heritage
Less Than Fifth Grade	4.1	11.8	17.6	5.6	27.2	28.5	4.8	29.5	30.4
Less Than Ninth Grade	23.9	39.2	44.8	32.7	64.3	56.3	37.7	70.4	61.0
Four Years of High School or More	57.6	34.8	37.0	47.1	16.3	28.9	43.9	12.8	25.5
Four Years of College or More	12.9	4.8	6.2	7.5	2.6	4.8	4.8	2.2	4.0
Median School Years Completed	12.2	10.2	9.9	11.6	7.7	8.4	11.0	7.2	8.1

SOURCE: U.S. Bureau of the Census, General Social and Economic Characteristics. Census of the Population: 1970; Final Report PC(1)-C1; United States Summary (Washington, D.C.: U.S. Government Printing Office, 1972), Table 88, pp. 386-87.

Table A-2

Percent of Families with Income Less than the Poverty Level
1969

	Total	White	Negro	Persons of Spanish Heritage
United States	10.7	8.6	29.8	20.4
Urban	9.0	6.9	25.9	19.2
Rural Nonfarm	15.0	12.5	49.2	30.3
Rural Farm	15.8	14.0	49.0	27.3

SOURCE: U.S. Bureau of the Census, General Social and Economic Characteristics. Census of Population: 1970; Final Report PC(1)-C1; United States Summary (Washington, D.C.: U.S. Government Printing Office, 1972), Table 95, pp. 400-401.

NOTE: This publication provides a detailed definition of poverty status (pp. App-29 through App-31). The range of poverty income cutoffs varies according to such factors as family size, sex of the family head, number of children under 18 years old, and farm and nonfarm residence. In 1969, for example, the weighted poverty threshold for a farm family of four headed by a male was $3,197.

Table A-3

Farm Population as a Percent of the Total U.S. Population
1920-1970

Year	Percent of Total Population
1920	30.1
1930	24.9
1940	23.2
1950	15.3
1960	8.7
1970	4.8

SOURCE: U.S. Bureau of the Census, Statistical Abstract of the United States: 1971. 92nd. ed. (Washington, D.C.: U.S. Government Printing Office, 1971) Table 922, p. 572

Table A-4

Rural and Urban Population
1950, 1960, and 1970

Year	Urban Population		Rural Population	
	Millions	Percent of Total	Millions	Percent of Total
1950	96.8	64.0	54.5	36.0
1960	125.3	69.9	54.1	30.1
1970	149.3	73.5	53.9	26.5

SOURCE: U.S. Bureau of the Census, Statistical Abstract of the United States: 1973. 94th. ed. (Washington, D.C.: U.S. Government Printing Office, 1973), Table 17, p. 17.

Table A-5

Enrollment Change by Educational Level
Urban, Rural Nonfarm, Rural Farm
1960 and 1970

Grade Level	Urban		Rural Nonfarm		Rural Farm	
	1960	1970	1960	1970	1960	1970
K	1,740,063	2,334,332	338,350	573,670	72,108	116,496
1-8	19,198,210	23,620,953	7,240,196	7,719,956	2,549,176	1,869,310
9-12	6,461,872	10,401,626	2,255,212	3,127,740	978,959	951,268
TOTAL	27,400,145	36,356,911	9,833,758	11,421,366	3,600,243	2,937,074

SOURCES: U.S. Bureau of the Census, Characteristics of the Population, Vol. I. U.S. Census of Population: 1960; Part I, United States Summary (Washington, D.C.: U.S. Government Printing Office, 1964), Table 75, p. 206.

U.S. Bureau of the Census, General Social and Economic Characteristics. Census of the Population: 1970; Final Report PC(1)-C1; United States Summary (Washington, D.C.: U.S. Government Printing Office, 1972) Table 88, p. 386

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